

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

In the Matters of	)	
	)	
Appropriate Framework for	)	CC Docket No. 02-33
Broadband Access to the Internet	)	
Over Wireline Facilities	)	
	)	
Universal Service Obligations of	)	
Broadband Providers	)	
	)	
Computer III Further Remand Proceedings:	)	CC Docket Nos. 95-20, 98-10
Bell Operating Company Provision of	)	
Enhanced Services; 1998 Biennial Regulatory	)	
Review – Review of Computer III and ONA	)	
Safeguards and Requirements	)	

**COMMENTS ON PETITIONS FOR RECONSIDERATION OF  
QWEST COMMUNICATIONS INTERNATIONAL INC.**

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December 29, 2005

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## SUMMARY

Qwest supports the Petition for Limited Reconsideration of the Commission's September 23, 2005 *Broadband Order* filed by the Verizon telephone companies. Qwest opposes the Petition for Clarification and/or Reconsideration of that same *Order* filed by the Arizona Corporation Commission.

Qwest supports Verizon that the Commission should treat all broadband services under the same regulatory structure no matter the use to which the customers put the services. Qwest points out that while the Commission has previously divided relevant product markets for telecommunications services based on types of purchasers of particular products, it has not to date divided the marketplace based on the use to which identical customers put the identical services.

Qwest opposes the Arizona Commission's request that VoIP combined with a DSL service offering should be classified as a telecommunications service. Qwest believes that the appropriate regulatory classification for true VoIP is as an information service, and that it is not the functional equivalent of traditional telephone service. Arizona also seeks to have the Commission classify the transmission component when offered separately from Internet access as a telecommunications service regulated under Title II of the Act. Qwest argues that prior Commission decisions support the notion that the provider be allowed to treat the transmission component as either an information service or a telecommunications service based on regulatory and marketplace efficiencies. Qwest also points out that Arizona has provided no evidence that the Commission's *Broadband Order* will be difficult to administer.

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**COMMENTS ON PETITIONS FOR RECONSIDERATION OF  
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On September 23, 2005, the Federal Communications Commission (“Commission”) issued its *Broadband Order*, ruling on the regulatory treatment for wireline broadband services Internet access services.<sup>1</sup> Two parties, the Verizon telephone companies (“Verizon”)<sup>2</sup> and the Arizona Corporation Commission (“Arizona”)<sup>3</sup> filed petitions for reconsideration. By these comments Qwest Communications International Inc. (“Qwest”) supports Verizon’s petition for reconsideration and opposes Arizona’s.

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<sup>1</sup> *In the Matters of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, CC Docket No. 02-33, *Report and Order and Notice of Proposed Rulemaking*, 20 FCC Rcd 14853 (2005) (“*Broadband Order*”), *appeals pending sub nom. Time Warner Telecom Inc. v. FCC*, No. 05-4769 (3<sup>rd</sup> Cir. pet. for rev. filed Oct. 26, 2005).

<sup>2</sup> *See* Petition for Limited Reconsideration of Title I Broadband Order of Verizon telephone companies, filed herein on Nov. 16, 2005; *see also* Public Notice, Report No. 2745 (Dec. 1, 2005), 70 Fed. Reg. 74016 (Dec. 14, 2005).

<sup>3</sup> *See* Petition of the Arizona Corporation Commission for Clarification and/or Reconsideration, filed herein on Nov. 16, 2005; *see also* Public Notice, Report No. 2745 (Dec. 1, 2005), 70 Fed. Reg. 74016 (Dec. 14, 2005).

## **I. QWEST SUPPORTS VERIZON’S PETITION FOR RECONSIDERATION**

Verizon has petitioned to have the Commission grant light regulatory treatment to stand-alone broadband transmission services, such as the Asynchronous Transfer Mode (“ATM”) and Frame Relay services sold to large enterprise customers, even when those services are not offered as part of an Internet access service.<sup>4</sup> The *Broadband Order* applies only to broadband services that are used, either by the incumbent local exchange carrier (“ILEC”) itself, or by one of its customers, to provide Internet access services to the public. If the ILEC customer chooses to use an ILEC’s broadband service for another purpose, then the broadband offering of the ILEC remains under the common carrier obligations pursuant to which other ILEC special access offerings are subject. Verizon seeks to correct this anomaly and requests that the Commission rule that all broadband services be treated under the same regulatory structure regardless of the use to which the purchaser puts those services. Verizon’s analysis is correct. While the Commission has divided the relevant product markets for telecommunications services based on the nature of the aggregated purchasers of particular products (*e.g.*, “enterprise” and “mass market” customers), it has never before divided the marketplace based on the use to which identical customers put the identical services. There is no reason for the Commission to engage in such an undertaking now, and the *Broadband Order* does not state any reason why the Commission has so divided the market in the *Broadband Order*.

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<sup>4</sup> Verizon petition at 2.

## **II. QWEST OPPOSES ARIZONA’S PETITION FOR CLARIFICATION AND/OR RECONSIDERATION**

Arizona seeks reconsideration or clarification on two issues.<sup>5</sup> First, Arizona would like the Commission to decide that Voice over Internet Protocol (“VoIP”) combined with Digital Subscriber Line (“DSL”) should be classified as a telecommunications service.<sup>6</sup> In addition, Arizona would like the Commission to classify the transmission component when offered separately from Internet access as a telecommunications service under Title II.<sup>7</sup>

### **A. The Commission Should Classify VoIP As An Information Service**

The Commission’s *Broadband Order* did not decide whether VoIP is an information service or a telecommunications service. The Commission earlier decided, in the *Vonage Order*, that VoIP is an interstate service, which state public utility commissions (“PUCs”) may not regulate.<sup>8</sup> The Commission has not, however, decided whether VoIP is an information service or a telecommunications service.<sup>9</sup> While Qwest believes that true VoIP should be classified as an information service, the *Broadband Order* did not address that question. Arizona, on the other hand, assumes as a predicate to its petition that VoIP service itself is a telecommunications

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<sup>5</sup> Arizona filed its petition under Rule 1.106. 47 C.F.R. § 1.106. However, this rule is for reconsideration petitions in non-rulemaking proceedings. Qwest files the instant comments to both the Verizon and Arizona petitions pursuant to Rule 1.429(f), which is the relevant subsection for responsive pleadings in rulemaking proceedings. See the Commission’s December 1, 2005 Public Notice of the petitions (Report No. 2745).

<sup>6</sup> Arizona petition at 3-6.

<sup>7</sup> *Id.* at 6-9.

<sup>8</sup> *In the Matter of Vonage Holdings Corp. Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. 03-211, Memorandum Opinion and Order, 19 FCC Rcd 22404, 22413-14 ¶ 18 (2004), *appeals pending sub nom. Minnesota Public Utilities Commission v. FCC*, No. 05-1069 (8<sup>th</sup> Cir. pet. for rev. filed Jan. 6, 2005).

<sup>9</sup> *Id.* at 22411-12 ¶ 14.

service, not an information service, and that VoIP combined with DSL should likewise be classified as a telecommunications service.

Arizona's argument that VoIP (including VoIP combined with DSL) should be a telecommunications service betrays some confusion on Arizona's part regarding how VoIP and DSL work. Arizona argues that "VoIP offers the end-user a transparent transmission path without any change in the form or content of the information. Further, the content or form of information conveyed is of the user's own choosing."<sup>10</sup> Arizona also argues VoIP "is the functional equivalent of [a] telecommunications service."<sup>11</sup> As is demonstrated below, VoIP does involve a change in the form or content of the information transmitted, and is not the functional equivalent of a telecommunications service.<sup>12</sup>

# **1. Arizona Ignores That Internet Access Is A Necessary Building Block Of True VoIP**

Arizona asserts that with VoIP "it is no longer true that a consumer will only use the high-speed wire in connection with the information-processing capabilities provided by Internet access."<sup>13</sup> As is demonstrated below, and in Qwest's filings in the IP-enabled services docket,<sup>14</sup>

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<sup>10</sup> Arizona petition at 5.

<sup>11</sup> *Id.* Arizona's use of the term "functional equivalent" seems to be inadvertent and not related to the proper use of the term in conjunction with Section 202(a) of the Act. *See Ad Hoc Telecommunications Users Committee v. FCC*, 680 F.2d 790, 795-96 (D.C. Cir. 1982).

<sup>12</sup> Obviously we are addressing "true VoIP" in these comments, which as we define below, is an IP application that connects to the calling party via a broadband connection. Simple use of IP technology as a transmission device between Time Division Multiplex ("TDM") telephones is not VoIP as we use that term.

<sup>13</sup> Arizona petition at 5.

<sup>14</sup> *In the Matter of IP-Enabled Services*, WC Docket No. 04-36. Attached hereto are the relevant pages excerpted from the Comments (6-24) of Qwest, filed May 28, 2004 and the Reply Comments (8-18) of Qwest, filed July 14, 2004 in the aforementioned docket. Qwest requests that these pages be incorporated by reference into the dockets referenced in the above-captioned proceedings.

at least with regards to true VoIP this assertion is factually erroneous. “True VoIP” refers to an application that provides real-time, two-way voice capability originating in the Internet Protocol over a broadband connection. True VoIP does not rely on the ability of the public network to establish a physical connection between two parties. Instead, true VoIP relies on Internet routing and processing of IP packets in the same manner as services such as e-mail, file transfer, and http (“hypertext transfer protocol,” which forms the underpinning for the World Wide Web).

Use of true VoIP service requires a broadband IP connection, whether DSL, DS1, cable-modem, wireless or other similar high speed service. Customers use the service through special devices (a “VoIP Phone” or an “Analog Telephone Adapter”) generically referred to as “VoIP Endpoints,” which are actually powerful computers with processors for running software and Ethernet ports to connect to a Local Area Network and on to the Internet over a broadband connection.

The VoIP Phone has a display with programmable softkeys for controlling its functions. The display and the buttons can also be used to access information on the Internet such as stock quotes, flight delays, news headlines, weather, and so on. VoIP service is software-based and runs on industry standard, general purpose web servers called “Feature Servers.” These Feature Servers are accessed by customers using the very same Internet protocols that customers use to access other web servers, such as google.com. When a VoIP Endpoint establishes a connection to the Internet, software in the VoIP Endpoint detects that connection and notifies the Feature Server by sending a message to a web address associated with the service provider. The VoIP Endpoint identifies itself to the Feature Server, and provides information needed by the Feature Server to send to it return messages. Thus, the subscriber can connect to the Internet from anywhere in the world and use the service in the same manner as from the subscriber’s “home”



location. Once connected, the VoIP Endpoint will seek out the Feature Server by transmitting information over the Internet.

Subscribers use a standard web browser to initiate a web session to access their control dashboards, which are associated with their account profiles and stored on the Feature Server. One of the control panels available on the dashboard is a list of the subscriber's voicemails, along with the attributes of each message, including a timestamp, caller ID, caller name, message length, among others. A user can scan the list visually, click on the voice message that she deems most important, and play the voice message using a standard software media player on her PC. A user can simultaneously scan and listen to voicemail messages, initiate a real-time voice communication, and forward a voicemail message as an attachment to an e-mail message. During such a session, a wide array of IP packets would flow between the VoIP Phone, the Feature Server, its voicemail counterpart, and e-mail servers. The user's broadband connection would carry IP packets for the voice conversation itself, the voicemail message downloaded from the voicemail server, and the e-mail message. These packets would be virtually indistinguishable from each other as they traverse IP networks. Internet routers act on the IP addresses in headers of the packets to determine how to route them, without regard to their contents.

Thus, contrary to Arizona's fundamental assertion, true VoIP relies upon the information-processing capabilities provided by Internet access. Such information processing capabilities are a prerequisite for true VoIP to work. VoIP is simply another Internet application, and there is no reason to treat it any differently than other similar applications, whether in conjunction with ILEC broadband services or otherwise.

## 2. True VoIP Should Be Classified As An Information Service

Under the statutory definitions, true VoIP is appropriately classified as “information services,” not “telecommunications services.” A “telecommunications service,” as defined in the Act, offers “the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received.”<sup>15</sup> An “information service” offers “a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications[.]”<sup>16</sup> The plain language of these definitions, and the Commission’s precedents, warrant the classification of VoIP as an “information service.”

In the 1996 Act, Congress chose to subject only telecommunications services to Title II and certain other regulations, and adopted a national policy that the “Internet and other interactive computer services” shall be “unfettered by Federal or State regulation.” 47 U.S.C. § 230(b)(2). The Commission has held consistently that a service that offers transmission incorporating the capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information, is an unregulated information service even though it uses telecommunications to do so.<sup>17</sup> Most recently, in addition to considering as part of

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<sup>15</sup> See 47 U.S.C. § 153(43) & (46) (2001) (definitions of “telecommunications” and “telecommunications service”).

<sup>16</sup> 47 U.S.C. § 153(20) (2001).

<sup>17</sup> *In the Matter of Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, et al.*, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, 4823-24 ¶ 41 (citing *Universal Service Report to Congress, In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, 13 FCC Rcd 11501, 11520 ¶ 39 (1998) (“*Stevens Report*”)) (2002) (“*Cable Modem Order*”), *rev’d in part, Brand X Internet Services v. FCC*, 345 F.3d 1120 (9<sup>th</sup> Cir. 2003), *rev’d, Brand X*, 125 S. Ct. 2688 (2005). Some of the services the Commission has treated as enhanced services include voice mail, e-mail, store-and-forward services, interactive voice response, protocol processing, and gateway and audiotext services. See *In the Matter of Appropriate Framework for Broadband Access to the Internet*

its classification inquiry whether the service before it involved a “net protocol conversion,”<sup>18</sup> the Commission has also considered whether the service provides “enhanced functionality to end users due to the provider’s use of IP technology.”<sup>19</sup>

It is clear that true VoIP service, offering subscribers enhanced functionality through the use of data processing should be classified as an “information service” under the Act. True VoIP uses the Internet Protocol and, through data processing, offers subscribers voice capabilities, voice messaging, advanced call control, and a web browser-based dashboard for subscriber management of call handling and messages. Further, communications originated by a true VoIP subscriber in the Internet Protocol that terminate over the Public Switched Telephone Network (“PSTN”) are delivered to a gateway for conversion to the TDM protocol; hence, VoIP service involves a “net protocol conversion.”<sup>20</sup>

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*over Wireline Facilities*, CC Docket No. 02-33, Notice of Proposed Rulemaking, 17 FCC Rcd 3019, 3038 n.77 (2005) (“*Wireline Broadband NPRM*”).

<sup>18</sup> A service that both originates and terminates in the Internet Protocol that offers enhanced functionality may be an information service even though it involves no net protocol conversion, however. See, e.g., *In the Matter of Petition for Declaratory Ruling that Pulver.Com’s Free World Dialup Is Neither Telecommunications Nor a Telecommunications Service*, WC Docket No. 03-45, Memorandum Opinion and Order, 19 FCC Rcd 3307, 3312 ¶ 9 (the Pulver service, which involves no net protocol conversion, is an information service because it “provides new information” to members) (2004) (“*Pulver Declaratory Ruling*”). See 47 C.F.R. Section 64.702(a) for the full definition of an enhanced service.

<sup>19</sup> See *In the Matter of Petition for Declaratory Ruling That AT&T’s Phone-to-Phone IP Telephony Services Are Exempt from Access Charges*, WC Docket No. 02-361, Order, 19 FCC Rcd 7457-58 ¶ 1 (AT&T service is a telecommunications service, not an information service, because it “undergoes no net protocol conversion and provides no enhanced functionality to end users due to the provider’s use of IP technology”) (2004) (“*AT&T Declaratory Ruling*”). See also *Pulver Declaratory Ruling*, 19 FCC Rcd at 3314 ¶ 12 (“to find [that Pulver’s FWD service is a telecommunications service] would ... ignore the [enhanced] capabilities described above that FWD makes available to its members”). The *AT&T Declaratory Ruling* was based on the critical difference between an IP-enabled service (i.e., true VoIP) and the use of IP technology as a transmission technique (e.g., AT&T’s service).

<sup>20</sup> The Commission has found that an end-to-end protocol conversion that enables an end user to send information into a network in one protocol and have it exit the network in a different

True VoIP accordingly satisfies the definition of an “information service” under the Act. The service offers its subscribers “the capability” for: *generating* Session Initiation Protocol (“SIP”) sessions and voice transmissions; *acquiring* information such as stock quotes, flight information, news, etc.; *storing* information regarding the subscriber’s profile, configuration of the service, and voice messages; *transforming* voice transmissions for termination over the PSTN and damaged or lost information through repair and reconstruction applications; *processing* subscriber-generated changes to service configuration and protocols associated with voice transmissions; *retrieving* stored profile information and voice messages; and *utilizing* certain information such as identifying numbers and passwords to access the service and configure subscriber service in accordance with their preferences.

The Commission has analyzed services by examining the offering as a whole and the benefits a service offers to end users.<sup>21</sup> If the end user can receive enhanced functionality, the service is an information service.<sup>22</sup> Further, the fact that a particular end user may not use all of

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protocol clearly “transforms” user information. *In the Matter of Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as Amended*, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905, 21956 ¶ 104 (1997) (“*Non-Accounting Safeguards Order*”). The processing involved in true VoIP is not used to facilitate transmission within a single network, but rather between disparate networks. That is precisely the kind of protocol conversion that the Commission has found to be characteristic of “enhanced” services. *See In the Matter of Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry)*, Docket No. 20828, Final Decision, 77 FCC 2d 384, 422 ¶ 99 (code and protocol conversion that “allow[] disparate terminals to communicate with one another” are “more appropriately associated with the provision of enhanced services”) (1980) (“*Computer II Final Decision*”), *on recon.*, 84 FCC 2d 50 (1980), *on further recon.*, 88 FCC 2d 512 (1981), *aff’d sub nom. Computer and Communications Industry Ass’n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983).

<sup>21</sup> *Cable Modem Order*, 17 FCC Rcd at 4821 ¶ 35, 4822-23 ¶ 38 (application of the statutory definitions rests on the functions the end user is offered).

<sup>22</sup> *Stevens Report*, 13 FCC Rcd at 11530 ¶ 59.

the functions offered by a service is not relevant to its classification.<sup>23</sup> Rather, the critical inquiry is whether the end user *can receive* enhanced functionality.<sup>24</sup>

### **3. True VoIP Is Not The Functional Equivalent Of Traditional Telephone Service**

Arizona states, without going through any analysis that VoIP is the functional equivalent of traditional telephone service.<sup>25</sup> True VoIP is not the functional equivalent of traditional telephone service. Applying the “functional equivalence” test refutes rather than supports Arizona’s position. Commission precedent establishes that the functional equivalence inquiry considers *all* aspects of the services being compared (other than price), not merely alleged similarities. As the Commission has explained in applying the functional equivalence test

once all services are stripped to the core, and all options and features such as operator-assist features, unique address coding, geographic and number restrictions and the like are ignored, essentially all voice message services might appear to be like one another. *Differences between services with respect to features, operating characteristics and service options cannot be ignored.* Rather, they must be examined in light of their material relevance or practical significance to customers.<sup>26</sup>

When the “features, operating characteristics and service options” of IP-enabled services and IP-voice applications are considered, as they must be, it is clear that neither VoIP nor any other IP-

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<sup>23</sup> *Cable Modem Order*, 17 FCC Rcd at 4822-23 ¶ 38.

<sup>24</sup> *Stevens Report*, 13 FCC Rcd at 11530 ¶ 59.

<sup>25</sup> Arizona petition at 5. As noted earlier, Arizona’s use of the phrase “functional equivalent” appears to be misplaced. Nevertheless, application of the “functional equivalence” test in the context of VoIP supports the Commission’s basic result -- a customer using its broadband IP connection to transmit real-time voice communications in a packet stream that includes a myriad of other uses hardly can be viewed as perceiving that it is receiving traditional telephone service.

<sup>26</sup> *In the Matter of MCI Telecommunications Corporation, Complainant, v. American Telephone and Telegraph Company, Defendant*, File No. E-91-37, Memorandum Opinion and Order, 7 FCC Rcd 3047, 3049 ¶ 11 (1992) (emphasis added; footnote omitted), *vacated and remanded on other grounds*, *MCI v. FCC*, 10 F.3d 842 (D.C. Cir. 1993).

enabled application is “functionally equivalent” to traditional telephony or any other telecommunications service.

For the reasons stated above, and in Qwest’s filings in the IP-enabled services docket, the Commission should classify VoIP as an information service, and should deny the Arizona Commission’s petition for clarification that a VoIP/DSL offering is a telecommunications service. To the extent that functional equivalence is relevant (and it is not), customers clearly perceive that, when they purchase broadband Internet access and use it for voice among other things, they are not purchasing a Plain Old Telephone Service (“POTS”) line.

**B. The Transmission Component Offered On An Unbundled Basis Need Not Be Classified As A Telecommunications Service**

The Commission correctly determined that when a service provider offers the transmission component independently of the Internet access function the service provider may choose whether to offer the transmission component on either a common carriage or non-common carriage basis.<sup>27</sup> As Verizon correctly pointed out, this decision does not go far enough because it retains the common carrier status of some broadband services that are not used in conjunction with Internet access. Arizona’s petition does not provide a basis for the Commission to change its decision in the opposite direction and reclassify broadband Internet access as a telecommunications service when the actual Internet access is being provided by an independent party. Arizona believes that the Commission’s decision that a provider can decide whether to offer the transmission component as either an information service or a telecommunications service is inconsistent with existing case law.<sup>28</sup> As is shown below, Arizona is incorrect as to the

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<sup>27</sup> *Broadband Order*, 20 FCC Rcd 14853 at ¶ 86.

<sup>28</sup> Arizona petition at 6.

case law. Finally, Arizona asserts that the Commission's decision will be difficult to administer. Arizona has offered no evidence in support of this assertion.

**1. Prior Decisions Support The Commission's Decision To Allow A Provider To Treat Provision Of The Transmission Component As Either An Information Service Or A Telecommunications Service**

The Commission determined in the *Broadband Order* that, to the extent that wireline broadband Internet access service providers wish to continue offering the transmission component to unaffiliated information service providers ("ISPs"), they may do so on a common carrier or a non-common carrier basis.<sup>29</sup> Contrary to Arizona's argument that this decision was not supported by prior decisions, the Commission noted numerous other instances where it allowed service providers to determine whether to make their offering on a common carrier or non-common carrier basis.<sup>30</sup> In one of those instances, as here, the Commission specifically found that the market evolved such that market forces obviated the need for common carrier regulation of domestic satellite licensees.<sup>31</sup> Thus, the Commission allowed licensees to choose the regime under which they offered capacity.

The Commission has found that with respect to the wireline broadband Internet access, common carriage regulations no longer serve a valid purpose, and in fact, such regulation acts as a constraint on broadband infrastructure investment and product innovation.<sup>32</sup> The Commission believes that allowing providers to offer the transmission component to ISPs on a non-common

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<sup>29</sup> *Broadband Order*, 20 FCC Rcd 14853 at ¶¶ 86-95.

<sup>30</sup> *Id.* ¶ 94 & n.280.

<sup>31</sup> *In the Matter of Amendment to the Commission's Regulatory Policies Governing Domestic Fixed Satellites and Separate International Satellite Systems*, IB Docket No. 95-41, Report and Order, 11 FCC Rcd 2429, 2436 ¶¶ 45-46, 49 (1996). *See also Wold Communications, Inc. v. FCC*, 735 F.2d 1465, 1474-79 (D.C. Cir. 1984).

<sup>32</sup> *Broadband Order*, 20 FCC Rcd 14853 at ¶ 86.

carriage basis will allow innovative commercial-based contracts between the wireline providers and the ISPs, and may lead to further innovation in the offerings of unaffiliated ISPs.<sup>33</sup> This is well within the Commission's authority to regulate telecommunications in the public interest.

The Arizona Commission confuses the question when it argues about common carriage versus private carriage.<sup>34</sup> The Commission has not classified bulk DSL as private carriage. Arizona seems to be conflating the *Broadband Order* with the *Cable Modem Order* in which the Commission decided that, to the extent that cable operators provide broadband "telecommunications" to unaffiliated ISPs, they may do so as "private carrier[s]," not as "common carrier[s]" subject to regulation under Title II.<sup>35</sup> That was not the Commission's decision in the *Broadband Order*.

In sum, prior decisions support the Commission's decision to allow bulk sales of DSL to ISPs under either common carrier or non-common carrier arrangements. The Commission has not decided that bulk sales of DSL are private carriage.

## **2. Arizona Has Not Cited Any Facts To Support Its Concern That The Commission's Decision Will Be Difficult To Administer**

The Arizona Commission has not cited any basis for its concern that the Commission's decision would be difficult to administer.<sup>36</sup> As mentioned above, the Commission noted in the

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<sup>33</sup> *Id.* ¶ 88.

<sup>34</sup> Arizona petition at 7-8.

<sup>35</sup> *Cable Modem Order*, 17 FCC Rcd at 4829-30 ¶ 54.

<sup>36</sup> Arizona petition at 6. Arizona also argues that finding the transmission component to be telecommunications service is consistent with the finding that a carrier's section 251 unbundling obligations would not be changed as a result of the *Broadband Order*. *Id.* at 9. To be clear, the *Broadband Order* did not alter the rights of competitive LECs ("CLECs") under section 251. With respect to Unbundled Network Element ("UNE") rights under section 251(c)(3), the question is whether the requesting party is a telecommunications carrier and whether the service that the requesting party wishes to provide using the UNE at issue is a telecommunications



*Broadband Order*, that it had previous experience with allowing service providers the option to provide a particular service on a common carrier or non-common carrier basis.<sup>37</sup> Arizona has provided no evidence that these prior instances proved difficult to administer.<sup>38</sup>

### III. CONCLUSION

For the foregoing reasons the Commission should grant Verizon's limited petition for reconsideration, and should deny Arizona's petition for reconsideration.

Respectfully submitted,

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service. Permitting ILECs to engage in "private carriage" arrangements in the provision of DSL services to ISPs, does not prevent CLECs from continuing to provide these services on a common carrier basis, and retaining rights to provide such telecommunications services by means of UNEs.

<sup>37</sup> *Broadband Order*, 20 FCC Rcd 14853 at ¶ 94 & n.280.

<sup>38</sup> In point of fact, the structure proposed by Arizona, whereby it would be able to regulate some unspecified portion of interstate DSL or IP telephony services based on criteria that can only be described as diffuse, would be a nightmare for all providers.

CERTIFICATE OF SERVICE

I, Ross Dino, do hereby certify that I have caused the foregoing **COMMENTS ON PETITIONS FOR RECONSIDERATION OF QWEST COMMUNICATIONS INTERNATIONAL INC.** to be 1) filed with the FCC via the Electronic Comment Filing System, 2) served via electronic mail on the FCC's duplicating contractor, Best Copy and Printing, Inc. ([fcc@bcpiweb.com](mailto:fcc@bcpiweb.com)), and 3) served via First Class United States Mail, postage prepaid, upon the parties listed on the attached service list.

/s/ Ross Dino

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December 29, 2005

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**Before the  
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In the Matter of

IP-Enabled Services

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WC Docket No. 04-36

**COMMENTS OF  
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May 28, 2004

even greater force as applied to packet switched technologies, which do not distinguish between applications, and interconnected networks and computers.

For all of these reasons, it would be devastating to consumers and the economy, as well as contrary to law, for the Commission to now reverse its deregulatory policies as applied to IP-enabled and other information services, or allow state regulators to do so. The Commission can instead spur their development and deployment, as well as the deployment of broadband access necessary to use them, by reaffirming those policies, and exercising its authority under the Act to preempt state regulation.

**I. IP-ENABLED SERVICES ARE RADICALLY DIFFERENT FROM TELECOMMUNICATIONS SERVICES PROVIDED OVER CIRCUIT-SWITCHED NETWORKS.**

Resolution of the many issues raised by the *Notice*, including the classification and appropriate regulatory treatment of, and jurisdiction over, IP-enabled services and applications, including IP voice, requires an understanding of the Internet, including its operations and capabilities.<sup>17</sup> The Internet is wholly different from traditional telecommunications networks. It is a "global, packet-switched network of networks that are interconnected through the use of the common network protocol - IP."<sup>18</sup> This common standard provides all computers on the network with the same technical

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<sup>17</sup> As used herein, the phrase "IP-enabled services" means a service in which all telecommunications and information components originate in the Internet Protocol. This definition recognizes that most of what is currently unique about the Internet is related to IP origination. The phrase "IP-enabled application" refers to individual capabilities offered to subscribers through an IP-enabled service. The phrase "IP voice" means an application that provides real-time, two-way voice capability originating in the Internet Protocol over a broadband connection.

<sup>18</sup> *Notice* at n.23. See also 47 U.S.C. § 230(f)(1) (the Internet is an "international computer network of both Federal and non-Federal interoperable packet switched data networks").

interface and capabilities, making all Internet technologies equally available to anyone who accesses the Internet.<sup>19</sup> Because it is a worldwide matrix of hundreds of thousands of networks, computers, and files owned and operated by hundreds of thousands of people, no single person, entity, or group exerts any central control, administration, or authority over the Internet.<sup>20</sup> "It can't be ... monopolized."<sup>21</sup>

The courts have thus described the Internet as "a unique and wholly new medium of worldwide communication."<sup>22</sup> The Supreme Court itself has recognized that the Internet allows millions of people to communicate and access information "from around *the world*."<sup>23</sup> Geographic boundaries are unknown and irrelevant to the Internet.<sup>24</sup> Its promise, capabilities, and issues have "national and international dimension."<sup>25</sup>

As a result of the Commission's policy, codified in the 1996 Act by Congress, to "preserv[e] the vibrant and competitive free market . . . for the Internet and other

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<sup>19</sup> *Living Internet: Key Internet Features -- Universal Access* (visited May 19, 2004) <[http://livinginternet.com/i/ip\\_access.htm](http://livinginternet.com/i/ip_access.htm)> (IP protocol as a "common foundation makes all of the internet technologies equally available to anyone connected to the Internet").

<sup>20</sup> Notice at n.23 (quoting John S. Quarterman & Peter H. Salus, *How the Internet Works* (visited Dec. 17, 2003) <<http://www.mids.org/works.html>>).

<sup>21</sup> *Living Internet: Key Internet Features -- Robust Architecture* (visited May 19, 2004) <[http://livinginternet.com/i/ip\\_arch.htm](http://livinginternet.com/i/ip_arch.htm)>.

<sup>22</sup> *Zeran v. America Online, Inc.*, 129 F.3d 327, 328-29 (4<sup>th</sup> Cir. 1997), *cert. denied*, 524 U.S. 937 (1998).

<sup>23</sup> *Reno v. ACLU*, 521 U.S. 844, 849-50 (1997) (emphasis added).

<sup>24</sup> See Scott Cleland and John Freeman, *SIP "De-geograph-ies" Telecom: Transforms Central Office Assets into Liabilities*, Precursor, (May 5, 2004) ("*SIP De-geograph-ies*") ,("arbitrary *distances* are irrelevant to SIP [the protocol used in providing IP voice and other applications]: local, in-state toll, long distance and international").

<sup>25</sup> *Zeran*, 129 F.3d at 328-29.

interactive computer services, unfettered by Federal or State regulation,"<sup>26</sup> "a mere decade of widespread commercial use has produced a dizzying array of IP-enabled services, ranging from presence management to multimedia conferencing to unified messaging."<sup>27</sup> Indeed, as the Commission has noted, over the past ten years, "the Internet has transcended historical jurisdictional boundaries to become one of the greatest drivers of consumer choice and benefit, technical innovation, and economic development" in this country.<sup>28</sup> IP-enabled services are now deployed across multiple platforms by local exchange carriers, cable operators, direct broadcast satellite, video programming providers, wireless providers, and electric companies using power lines.<sup>29</sup>

IP-enabled services have included applications such as peer-to-peer file sharing, instant messaging, streaming media, online gaming, and virtual private networks.<sup>30</sup> Advancements in processor speeds and application level protocol definition have now made it possible to carry "real time" voice inside data packets using higher level protocols. For example, Session Initiation Protocol (SIP) is an application protocol that facilitates the connections between two or more "IP Endpoints" for the exchange of a voice, video, or Instant Messaging conversation or "session." These protocols bring true "convergence" in networking, resulting in robust, high performance systems that carry indiscriminately a wide range of applications. Thus, IP voice "is not another flavor of

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<sup>26</sup> 47 U.S.C. § 230(b)(2) (2001).

<sup>27</sup> *Notice* at n.13.

<sup>28</sup> *Id.*, ¶ 1.

<sup>29</sup> *Id.*, ¶ 9.

<sup>30</sup> *Id.*

telephone service," but simply another application offered by IP-enabled services.<sup>31</sup> It "is an important part of the convergence of computers, telephones and television into a single integrated information environment."<sup>32</sup>

#### **A. Packet-Switched Networks**

In IP networks, data is segmented into packets that are individually addressed and then transmitted over a series of physical networks. Packets may include text, video, computer programs, voice, or other forms of information.<sup>33</sup> These packets are indistinguishable from one another to networks and providers.<sup>34</sup>

Unlike circuit-switched networking, which requires reservation of a dedicated transmission path between two parties for the entire duration of the communication, when packets are transmitted via IP, there is no dedicated path between the points. Instead, routers read each packet address and determine which route to use on a packet-by-packet

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<sup>31</sup> Press Release, Voice on the Net Coalition, New Industry Coalition Seeks Policies to Allow Promise of VoIP (Feb. 23, 2004) ("*VON Press Release*"). See also Notice ¶ 4 ("VoIP services are not necessarily mere substitutes for traditional telephony").

<sup>32</sup> Searchnetworking.com Definitions, *IP Telephony*, available at [www.searchnetworking.techtarget.com](http://www.searchnetworking.techtarget.com) (last updated March 29, 2002).

<sup>33</sup> See, e.g., White Paper on IP Voice Services submitted by Voice on the Net (VON) Coalition, *Report to Congress on Universal Service*, CC Docket No. 96-45 (March 18, 1998), at 1 ("*VON Coalition White Paper*"); *SBC IP Communication Service Letter* at 3 (packets associated with voice transmission appear to the packet router no different than packets associated with other applications, such as web browsing or e-mail); Marguerite Reardon, *Capellas: Net Telephony is the Future*, CNET/News.com (last modified May 11, 2004) (quoting Michael Capellas), available at [http://msnbc-cnet.com.com/2100-7352\\_3-5210447.html?tag=guts\\_lh\\_7352](http://msnbc-cnet.com.com/2100-7352_3-5210447.html?tag=guts_lh_7352) ("*Net Telephony is the Future*") ("The rules are changing," he said. "Voice, data, music--they have all been digitized, and people want to access this content. But it's really just packets on a network. And on an IP network, packets all look the same.").

<sup>34</sup> Report to Congress, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, 13 FCC Rcd 11501, ¶ 87 (1998) ("*Stevens Report*"); see also Scott Woolley and Quentin Hardy, *Riding the New Wi-Fi Wave*, *Forbes*, April 26, 2004, at 104 ("*Riding the New Wi-Fi Wave*") ("the Internet is one big dumb pipe. It doesn't know or care whether it is carrying a Web page, a phone call or a sitcom").



basis.<sup>35</sup> In fact, different packets carrying payloads from a single communication often take different physical paths to the same destination.<sup>36</sup> When a packet reaches its final destination, it is unwrapped and the data inside are used for an application.<sup>37</sup> Data may be transmitted over the same IP connection by a single user to many other users, and vice-versa, at the same time.<sup>38</sup> Within the Internet, these data may use the same transmission path, or different paths. All packets are intermingled as they flow through the network to their destinations. This is true for both the public Internet and IP connections to the Internet.

Users may dynamically use bandwidth for a variety of simultaneous streams of information over a single connection, including video, voice, and others, all subject to the user's information management systems. Thus, a user can simultaneously, over a single connection, engage in a real-time voice conversation with a friend, watch a video news clip, send an e-mail to her mother, conduct research in an IP-available database, and check voice messages, sending a stream of intermingled packets to and through the Internet for routing and delivery.

**B. IP-Voice is an Incremental Application of Integrated IP-Enabled Services That Yield Numerous Efficiencies and Other Benefits.**

Although it permits real-time, two-way voice communications, IP voice is very different than "basic" service provided over circuit-switched networks. IP voice is an

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<sup>35</sup> Notice, ¶ 8. In other words, an IP-enabled communication involves transmission of individually addressed packets into the Internet, with the individual (and often independently owned) routers establishing an efficient delivery path on a cooperative basis for each packet.

<sup>36</sup> Stevens Report, 13 FCC Rcd 11501, ¶ 64.

<sup>37</sup> Notice at n.25.

<sup>38</sup> VON Coalition White Paper at 1.

application of IP-enabled service, as are e-mail, file transfer, and http ("hypertext transfer protocol," which forms the underpinnings for the World Wide Web). The subscriber to an IP-enabled service causes packets carrying the payload for the application(s) it is using, indistinguishable to the provider, to be launched over IP networks, as described above. Indeed, IP voice has been described as "an incremental application on packet networks,"<sup>39</sup> and as "an enabling feature that is likely to be embedded in a range of software applications from Customer Relationship Management, call centers, collaboration tools, and e-commerce."<sup>40</sup>

IP networks yield numerous efficiencies and other benefits relative to circuit-switched networks. These efficiencies and benefits hold for all communications originated by subscribers to IP-enabled services, whether those communications are terminated to another IP-enabled service subscriber or over the PSTN. First, IP-enabled services offer an array of new and different features and functions to enhance communications capabilities that are not, and cannot be, offered by telecommunications services provided over circuit-switched networks. For example, a user may be provided with consolidated access to all communications resources, including voice features and services, e-mail, instant messaging, conferencing, etc. Such a user may set up special communications handling rules for multiple situations, such as how to reach the user when out of the office, and special handling options for certain callers. Other features allow conferencing with shared screens, simultaneous revisions to text messages and

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<sup>39</sup> *SIP De-geograph-ies*.

<sup>40</sup> *Rise of VoIP Software; Barron's* ("Internet telephony also enables the creation of virtual call centers, with call center agents working from home answering calls sent to them online, reducing the need for expensive brick-and-mortar centers").

other documents by multiple parties on the same call, etc. These features and functions are provided "separate[ly] from voice switches and transport, " in contrast to features and functions offered by circuit-switched networks,<sup>41</sup>

Second, "the architecture of IP networks upends the tie between the subscriber and switch location – 'degeographying' telecommunications."<sup>42</sup> Stated another way, IP-enabled services "defy jurisdictional boundaries."<sup>43</sup> With circuit-switched networks such as those comprising the PSTN, each subscriber's premise has a dedicated connection to a switch in a central office, typically located within ten miles of the premise. A portion of that switch, the port, is permanently dedicated to the PSTN customer and contains the customer profile, which identifies the appropriate set of telephony features to which the customer has subscribed. The customer's telephone itself has no "identity;" instead, the switch to which the phone is connected contains the customer information.

In contrast, a subscriber's IP-enabled service may be customized from any location, as opposed to at the central office closest to its premises. Further, a subscriber to an IP-enabled service (including IP voice and other applications) may use it from any location at which there is an available IP-connection, including a connection arranged or established by a third party. This means that a subscriber to an IP-enabled service may

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<sup>41</sup> As one analyst has explained, Session Initiating Protocol used in IP networks "is an open software platform for converged voice and data applications, enabling any third party software developer to write new software applications," in contrast to circuit-switched networks, for which "the easy, inexpensive customization of value added software applications could never be separate from voice switches and transport." Scott Cleland, John Freeman, Bill Whyman, *SIP Happens: How VoIP Technology "Re-unbundles" Telecom*, Precursor (April 12, 2004) ("*SIP Happens*"). Thus, "VoIP offers a much cheaper product with richer functionality and software-integrated features." *Id.*

<sup>42</sup> Scott Cleland, Jamie Mendelson, *VoIP is a "Game Changer" that Favors Cable at Bells' Expense*, Precursor (Jan. 30, 2004) ("*VoIP is a Game Changer*").

<sup>43</sup> Notice, ¶ 4.

use its applications from almost anywhere in the world -- a very different arrangement than how PSTN subscribers are tethered to a Class 5 Switch in a particular central office.<sup>44</sup> Thus, for example, a subscriber could use its service with through a broadband connection at a London hotel.<sup>45</sup> The network and the provider have no concept of where the subscriber is at the time.<sup>46</sup> The provider's "Feature Server" merely associates identifying information from the London hotel's broadband connection with the subscriber's profile.<sup>47</sup>

Third, because a continuous circuit is not needed for the duration of a communication, packet switching used by IP networks "minimizes the time that a connection is maintained between two systems, which reduces the load on the network," and "allows several [communications] to occupy the amount of space occupied by only one in a circuit-switched network."<sup>48</sup> Fourth, each IP communication "requires only a single port per gateway," while "sharing a common IP interface," in contrast to

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<sup>44</sup> Upon power-up or network connection, the customer's CPE ("VoIP Endpoint") identifies itself to the provider's Feature Server," which then dynamically maps the VoIP Endpoint identity and a customer profile registered with the IP address currently associated with the VoIP endpoint. *See infra* at 21.

<sup>45</sup> In contrast, to use the AT&T specific service found to be a telecommunications service in the *AT&T Declaratory Ruling*, subscribers use the same telephones they use for all other circuit-switched calls, and in the same manner as any other circuit-switched long distance call. *AT&T Declaratory Ruling*, ¶ 11.

<sup>46</sup> A subscriber to an IP-enabled service that includes IP voice applications may request multiple phone numbers (including multiple area codes) for use with its services, without regard to geography. The subscriber may then place and receive calls on a single device, and decide on a call-by-call basis which number is represented to the network on an outgoing call.

<sup>47</sup> The broadband connection in the London hotel is assigned identifying information for purposes of routing information to the Endpoint that is connected to it. However, like the information identifying the computer using the connection, this identifying information bears no relationship to -- and contains no information regarding -- the physical location of the connection.

<sup>48</sup> *See howstuffworks/Packet Switching* (visited May 25, 2004) <<http://computer.howstuffworks.com/ip-telephony2.htm>>.

"traditional circuit-switched networks, in which each long distance call occupies two ports per Class 4 switch."<sup>49</sup> Fifth, IP networks offer the potential of higher reliability than the PSTN, as they "automatically re-route packets around problems such as malfunctioning routers or damaged lines, and do not need to rely on separate signaling networks."<sup>50</sup> Sixth, an IP network is capable of handling both data and voice, reducing significantly operational, maintenance and administrative costs.<sup>51</sup>

## **II. ALL IP-ENABLED SERVICES ARE "INFORMATION SERVICES" UNDER THE ACT AND COMMISSION PRECEDENT.**

The Commission seeks comment on the appropriate classification of IP-enabled service (*Notice* at ¶¶43-44), and whether and how such services should be further "categorized" (*Notice* at ¶¶35-37). Under the statutory definitions, IP-enabled services are appropriately classified as "information services, not "telecommunications services." A "telecommunications service," as defined in the Act, offers "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."<sup>52</sup> An "information service" offers "a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via

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<sup>49</sup> *VocalTec/Products & Solutions/White Papers, Inherent Cost Advantages of VoIP Networks*, available at [http://www.vocaltec.com/html/White\\_Papers/white.shtml](http://www.vocaltec.com/html/White_Papers/white.shtml) (visited May 19, 2004). In addition, "[a] SIP softswitch is about one-tenth the cost of a circuit switch on a one for one replacement basis." *See also SIP De-geograph-ies*.

<sup>50</sup> VON Coalition White Paper, at 2.

<sup>51</sup> *Id.*

<sup>52</sup> *See* 47 USC § 153(43) & (46) (2001) (definitions of "telecommunications" and "telecommunications service").

telecommunications."<sup>53</sup> The Commission has held that these terms have essentially the same meaning as "basic services" and "enhanced services," as defined by the Commission in its *Computer Inquiry* decisions.<sup>54</sup>

As explained below, the plain language of these definitions, and the Commission's precedents, warrant the classification of all IP-enabled services as "information services." The Commission's precedents, and the nature of IP-enabled service, moreover, preclude any effort to isolate particular applications of an integrated service for purposes of classification or categorization.

The classification of services as "telecommunications" or "information" has its origin in the Commission's *Computer Inquiry* proceeding. The Commission's decisions in that proceeding are thus highly relevant to both the classification of IP-enabled services, and whether the Commission should further "categorize" such services.

The *Computer Inquiry* proceeding was intended to address the "regulatory and policy problems posed by the growing interdependence of communications and data processing."<sup>55</sup> In particular, "as computer and communications technology continued to merge, the line between regulated and unregulated activities became increasingly

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<sup>53</sup> 47 USC § 153(20) (2001).

<sup>54</sup> Notice ¶ 26; First Report and Order and Further Notice of Proposed Rulemaking, *Implementation of the Non-Accounting Safeguards of Sections of 271 and 272 of the Telecommunications Act of 1934, as Amended*, CC Docket No. 96-149, 11 FCC Rcd 21,905 (1996), ¶ 102 ("Non-Accounting Safeguards Order"); Application for a License to Land and Operate in the United States a Private Submarine Fiber Optic Cable Extending Between the United States and the United Kingdom, *In the Matter of Cable & Wireless, PLC*, FCC 97-204, 12 FCC Rcd 8516 (1997), ¶ 13, *aff'd*, *Virgin Islands Telephone Corp.*, 198 F.3d 921, 926-27 D.C. Cir. 1999).

<sup>55</sup> *Computer and Communications Industry Ass'n v. FCC*, 693 F.2d 198, 204 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983).

blurred."<sup>56</sup> In its *Computer II Final Decision*, the Commission considered but rejected proposals to classify activities as either communications or data processing, finding that the "[r]espective technologies had become so intertwined that it had become impossible to draw an enduring line of demarcation between them."<sup>57</sup> The Commission then adopted two service classifications, "basic" and "enhanced." It defined basic service as a "pure transmission capability over a communication path that is virtually transparent in terms of its interaction with customer supplied information."<sup>58</sup> "Enhanced" services, in contrast, use basic service, but also involve the performance of processing applications or other actions, by either the provider or the subscriber, on the transmitted information.<sup>59</sup>

Especially significant for purposes of this proceeding, the Commission observed that enhanced and basic services each may encompass "voice" and "data" capabilities.<sup>60</sup> It also acknowledged expressly that "some enhanced services may do some of the same things that regulated communications services did in the past,"<sup>61</sup> and that "some enhanced services are not dramatically dissimilar from basic services or dramatically different from

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<sup>56</sup> *Id.* See also *Computer II Final Decision*, 77 FCC 2d 384, ¶ 100 (observing that "the computer industry and the communications industry are becoming more and more interwoven").

<sup>57</sup> *Computer and Communications Industry Ass'n*, 693 F.2d at 204-05 (quoting *Computer II Final Decision*) (quotations omitted).

<sup>58</sup> *Computer II Final Decision*, 77 FCC2d. 384, ¶ 96.

<sup>59</sup> *Id.*, ¶ 97. The Commission made clear that such processing applications need not change the content of the transmitted information for the service to be classified as enhanced. The Commission reached the same conclusion following enactment of the 1996 Act. *Id.* See also *Non-Accounting Safeguards Order*, 11 FCC Rcd 21,905, ¶ 104 ("We reject Bell Atlantic's argument that 'information services' only refers to services that transform or process the content of information transmitted by an end-user, because ... the statutory definition makes no reference to the term 'content,' but requires only that an information service transform or process 'information.'").

<sup>60</sup> *Computer II Final Decision*, 77 FCC2d. 384, ¶ 90-91.

<sup>61</sup> *Computer II Final Decision*, 77 FCC2d. 384, ¶ 132.

communications as defined in *Computer Inquiry I*.<sup>62</sup> The Commission nevertheless found that although enhanced services use basic service, they also "involve some degree of data processing that changes the form or content of the transmitted information," and that "generally, services that result in a protocol conversion are enhanced services."<sup>63</sup>

The Commission stressed that the "enhanced" classification covered a wide range of different services, each with communications and data processing components. Some might seem to be predominantly communications services; others might seem to be predominantly data processing services. The Commission declined, however, to carve out any subset of enhanced services as regulated communications services. It found that no regulatory scheme could "rationally distinguish and classify enhanced services as either communications or data processing," and that any dividing line the Commission drew would at best "result in an unpredictable or inconsistent scheme of regulation" as technology moved forward.<sup>64</sup> Such an attempt would lead to distortions, as enhanced service providers either artificially structured their offerings so as to avoid regulation, or found themselves subjected to unwarranted regulations. The Commission therefore determined that enhanced services, which are offered "over common carrier transmission facilities," were themselves not to be regulated under Title II of the Act, no matter how extensive their communications components.<sup>65</sup>

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<sup>62</sup> *Id.*, ¶ 130.

<sup>63</sup> *AT&T Declaratory Ruling*, ¶ 4. *See Computer II Final Decision*, 77 FCC2d. 384, ¶ 132.

<sup>64</sup> *Computer II Final Decision*, 77 FCC2d. 384, ¶¶ 107, 108, 113.

<sup>65</sup> *Stevens Report*, ¶ 27.



The Commission "conclude[d] that all enhanced services should be accorded the same regulatory treatment."<sup>66</sup> Finding the market for enhanced services to be sufficiently competitive to render regulation unnecessary, the Commission reasoned that "[w]ith the nonregulation of all enhanced services, FCC regulations will not directly or indirectly inhibit the offering of these services, nor will [the Commission's] processes be interjected between technology and its marketplace applications."<sup>67</sup>

In the 1996 Act, Congress codified the distinction between "basic" and "enhanced" services (renaming them "telecommunications" and "information" services, respectively), chose to subject only the former to Title II and certain other regulations, and adopted a national policy that the "Internet and other interactive computer services" shall be "unfettered by Federal or State regulation." Both before and after the 1996 Act, the Commission has adhered to these definitions and policies. In particular, the Commission has held consistently that a service that offers transmission incorporating the capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information, is an unregulated information service even though it uses telecommunications to do so.<sup>68</sup> Most recently, in addition to considering as part of its classification inquiry whether the service before it involved a "net protocol

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<sup>66</sup> *Computer II Final Decision*, 77 FCC2d. 384, ¶ 113.

<sup>67</sup> *Id.*, ¶ 116.

<sup>68</sup> *Cable Modem Order*, 17 FCC Rcd 4798, ¶ 41, *citing Universal Service Order*, ¶ 39. Some of the services the Commission has treated as enhanced services include voice mail, e-mail, store-and-forward services, interactive voice response, protocol processing, and gateway and audiotext services. *See Wireline Broadband NPRM* at n.77.

conversion,"<sup>69</sup> the Commission has also considered whether the service provides "enhanced functionality to end users due to the provider's use of IP technology."<sup>70</sup>

Against this background, it is clear that all IP-enabled services, including the Qwest service described below, offering subscribers enhanced functionality through the use of data processing should be classified as "information services" under the Act. All IP-enabled services convert information from one form to another, process, retrieve, and store information, add protocol information, process protocols, and perform myriad other functions that constitute information services, including facilitating subscriber interaction with stored information (such as customer profiles). Qwest's IP-enabled service, for example, uses the Internet Protocol and, through data processing, offers subscribers voice capabilities, voice messaging, advanced call control, and a web browser-based dashboard for subscriber management of call handling and messages. This enhanced functionality was entirely absent from the service that the Commission classified as a "telecommunications service" in the *AT&T Declaratory Ruling*.<sup>71</sup> Further, communications originated by a Qwest subscriber in the Internet Protocol that terminate

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<sup>69</sup> A service that originates and terminates in both the Internet Protocol that offers enhanced functionality may be an information service even though it involves no net protocol conversion, however. See, e.g., *Pulver Declaratory Ruling*, ¶ 9 (Pulver service, which involves no net protocol conversion, is an information service because it "provides new information" to members).

<sup>70</sup> See *AT&T Declaratory Ruling*, ¶ 1 (AT&T service is a telecommunications service, not an information service, because it "undergoes no net protocol conversion and provides no enhanced functionality to end users due to the provider's use of IP technology"). See also *Pulver Declaratory Ruling*, ¶ 12 ("to find that [Pulver's FWD service is a telecommunications service] would ... ignore the [enhanced] capabilities described above that FWD makes available to its members"). The *AT&T Declaratory Ruling* was based on the critical difference between an IP-enabled service (e.g., Qwest's service) and the use of IP technology as a transmission technique (e.g., AT&T's service).

<sup>71</sup> *AT&T Declaratory Ruling*, ¶¶ 11-13 (describing AT&T's service as offering customers nothing different than traditional circuit-switched service).

over the PSTN are delivered to a gateway for conversion to the TDM protocol; hence, again in contrast to the service at issue in the *AT&T Declaratory Ruling*, Qwest's service involves a "net protocol conversion."<sup>72</sup>

Use of Qwest's IP-enabled service requires an IP connection, whether DSL, cable-modem, or wireless, which may be obtained from Qwest or a third-party. Customers use the service through special devices (initially, a "VoIP Phone" or an "Analog Telephone Adapter") generically referred to as 'VoIP Endpoints,' which are actually powerful computers with processors for running software and Ethernet ports to connect to a Local Area Network and on to the Internet over a broadband connection. The VoIP Phone has a display with programmable softkeys for controlling its functions. The display and the buttons can also be used to access information on the Internet such as stock quotes, flight delays, news headlines, weather, etc.

Qwest's IP-enabled service is software-based and runs on industry standard, general purpose web servers called "Feature Servers," which are connected to the Internet by Qwest's IP backbone. These Feature Servers are accessed by customers using the very same Internet protocols that customers use to access other web servers, such as Qwest.com. When a VoIP Endpoint establishes a connection to the Internet, software in

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<sup>72</sup> The Commission has found that an end-to-end protocol conversion that enables an end-user to send information into a network in one protocol and have it exit the network in a different protocol clearly "transforms" user information. *Non-Accounting Safeguards Order*, 11 FCC Rcd 21,905, ¶ 104. The protocol conversion involved in Qwest's service, moreover, does not fall within the "management exception" to the definition of an "information service." *See Notice*, ¶ 43. The processing performed in connection with voice applications offered as part of Qwest's IP-enabled service is qualitatively different from the processing that this Commission has held to be part of a "basic" service. Most fundamentally, the processing involved in Qwest's service is not used to facilitate transmission within a single network, but rather between disparate networks. That is the precisely the kind of protocol conversion that the Commission has found to be characteristic of "enhanced" services. *See Computer II Final Decision*, 77 FCC 2d 382, ¶ 99 (code and protocol conversion that "allow[] disparate terminals to communicate with one another" are "more appropriately associated with the provision of enhanced services").

the VoIP Endpoint detects that connection and notifies the Feature Server by sending a message to a web address associated with the service provider. The VoIP Endpoint identifies itself to the Feature Server, and provides information needed by the Feature Server to send to it return messages. Thus, the subscriber can connect to the Internet from anywhere in the world and use the service in the same manner as from the subscriber's "home" location. Once connected, the VoIP Endpoint will seek out the Feature Server by transmitting information over the Internet.

Subscribers use a standard web browser to initiate a web session to access their control dashboards, which are associated with their account profiles and stored on the Feature Server. One of the control panels available on the dashboard is a list of the subscriber's voicemails, along with the attributes of each message, including a timestamp, caller ID, caller name, message length, among others. Users can scan the list visually, click on the voice message that she deems most important, and play the voice message using a standard software media player on her PC. A user can simultaneously scan and listen to voicemail messages, initiate a real-time voice communication, and forward a voicemail message as an attachment to an e-mail message. During such a session, a wide array of IP packets would flow between the VoIP Phone, the Feature Server, its voicemail counterpart, and e-mail servers. The user's broadband connection would carry IP packets for the voice conversation itself, the voicemail message downloaded from the voicemail server, and the e-mail message. These packets would be virtually indistinguishable from each other as they traverse IP networks. Internet routers act on the IP addresses in headers of the packets to determine how to route them, without regard to their contents.

Qwest's IP-enabled service easily satisfies the definition of an "information service" under the Act. Qwest's service offers its subscribers "the capability" for: *generating* SIP sessions and voice transmissions; *acquiring* information such as stock quotes, flight information, news, etc.; *storing* information regarding the subscriber's profile, configuration of the service, and voice messages; *transforming* voice transmissions for termination over the PSTN and damaged or lost information through repair and reconstruction applications; *processing* subscriber-generated changes to service configuration and protocols associated with voice transmissions; *retrieving* stored profile information and voice messages; and *utilizing* certain information such as identifying numbers and passwords to access the service and configure their service in accordance with their preferences.

The Commission should reject proposals to isolate and separately classify individual applications offered as part of an integrated, IP-enabled service. The classification of Qwest's IP-enabled service, for example, should be based on the service as a whole, as opposed to IP voice or other individual applications the subscriber may utilize. To do otherwise would ignore Commission precedent, as well as the nature of IP-enabled services and applications. More specifically, the Commission has analyzed services by examining the offering as a whole and the benefits a service offers to end users.<sup>73</sup> If the end user can receive enhanced functionality, the service is an information service.<sup>74</sup> Further, the fact that a particular end user may not use all of the functions

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<sup>73</sup> *Cable Modem Order*, 17 FCC Rcd 4798, at ¶¶ 35, 38 (application of the statutory definitions rests on the functions the end user is offered).

<sup>74</sup> *Stevens Report*, 13 FCC Rcd 11501, ¶59.

offered by a service is not relevant to its classification.<sup>75</sup> Rather, the critical inquiry is whether the end user *can receive* enhanced functionality.<sup>76</sup> Classifying services based on its individual applications would also be inconsistent with the Commission's determination to classify a service as an "enhanced" or "information service" notwithstanding the presence of a "basic" component.<sup>77</sup>

Moreover, that an IP-enabled service includes voice applications provide no basis either to classify the service as a whole, or the voice application, as a "telecommunications service." When Congress codified in the Act the distinction between information (enhanced) and telecommunications (basic) services first adopted in the Commission's *Computer Inquiry* proceeding, the Commission had already made clear that enhanced services could include "voice capabilities," and that "some enhanced services are not dramatically dissimilar from basic services or dramatically different from communications as defined in Computer Inquiry I."<sup>78</sup>

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<sup>75</sup> *Cable Modem Order*, 17 FCC Rcd 4798, ¶ 38.

<sup>76</sup> *Stevens Report*, 13 FCC Rcd 11501, ¶ 59.

<sup>77</sup> *See generally id.* In addition, the Commission has held that under the "contamination" theory, "a combination of enhanced and basic services could be treated in its entirety as a unitary unregulated enhanced services," and has "permitted resellers who have engrafted a combination of end-to-end 'basic' and end-to-end enhanced services on underlying facilities provided by others to treat the entirety of the resale offering as unregulated." Notice of Proposed Rule Making, *Amendment of Section 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry)*, CC Docket No. 85- 229, 50 Fed. Reg. 33581, ¶¶ 32, 46 (Aug. 20, 1985) ("*Computer III NPRM*"). Because Qwest's IP-enabled service, for example, is provided by Qwest Communications Corporation over transmission facilities that it purchases from Qwest Corporation, the "contamination" theory provides an additional basis to "unregulate" the service in its entirety.

<sup>78</sup> *Computer II Final Decision*, 77 FCC2d. 384, ¶ 130. Even if it were appropriate to base classification determinations on individual applications of an integrated service, the voice applications offered by Qwest's IP-enabled service would qualify as "information services" under the factors previously identified by the Commission as relevant to the classification of "IP telephony." *Stevens Report*, 13 FCC Rcd 11501, ¶ 88. First, subscribers to Qwest's IP enabled services must use CPE different from the CPE necessary to place an ordinary touch-tone call over

Equally if not more important, the individual applications included as part of an IP-enabled service are indistinguishable to the networks that provide them. As explained *supra*, the packets that carry IP voice, voicemail messages, e-mail messages, text messages, video and other applications are all intermingled, and appear the same to network facilities and equipment. These facts underscore the integrated nature of IP-enabled services, and the futility of attempting to isolate applications for classification purposes. Regulations that would, either directly or in practice, require the isolation of such applications could prevent the offering of those IP-enabled services that are available today, and hinder or even foreclose the development of new services and applications.

These facts likewise underscore the perils associated with attempting to "categorize" IP-enabled services for regulatory purposes. Even before the advent of packet-switched networks and the Internet, the Commission recognized the difficulties and policy implications of attempting to classify and differentiate "categories" and "subcategories" of enhanced services.<sup>79</sup> Such an undertaking would be that much more difficult where the same underlying networks handle, but are unable to distinguish between, different applications.

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the PSTN," *i.e.*, a special VoIP phone or an "analog telephone adapter." Second, the conversion from IP to TDM protocol that is necessary to allow the subscriber to place calls that terminate over the PSTN constitutes "a change in the form and content of the transmitted information." *See Vonage Holdings Corp v. MPUC*, 290 F.Supp.2d 993, 1000 (D. Minn. 2003) (IP telephony "is not a telecommunications service because from the user's standpoint, the form of a transmission undergoes a net change").

<sup>79</sup> *See supra* at 17.

## CERTIFICATE OF SERVICE

I, Ross Dino, do hereby certify that I have caused 1) the foregoing **COMMENTS OF QWEST COMMUNICATIONS INTERNATIONAL INC.** to be filed with the FCC via its Electronic Comment Filing System in WC Docket No. 04-36, 2) a copy of the **COMMENTS** to be served, via e-mail, on Ms. Janice M. Myles, Competition Policy Division, Wireline Competition Bureau, Federal Communications Commission, via [janice.myles@fcc.gov](mailto:janice.myles@fcc.gov), and 3) a copy of the **COMMENTS** to be served via e-mail on the FCC's duplicating contractor, Qualex International, Inc., via [qualex.int@aol.com](mailto:qualex.int@aol.com).

/s/ Ross Dino  
Ross Dino

May 28, 2004



**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of

IP-Enabled Services

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WC Docket No. 04-36

**REPLY COMMENTS OF  
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July 14, 2004

**I. THE COMMENTS DEMONSTRATE OVERWHELMINGLY THAT ALL IP-ENABLED SERVICES AND APPLICATIONS, INCLUDING IP VOICE APPLICATIONS, ARE "INFORMATION SERVICES."**

Qwest and other parties have demonstrated that IP-enabled services and applications, including IP voice applications, offer users the capabilities specified in the Act's definition of, and are thus properly classified as, information services.<sup>11</sup> Indeed, parties supporting the classification of VoIP as a "telecommunications service" describe no offering that exists today, or is likely to exist in the future. Because they choose regulation over deregulation, these parties include in their analyses only those capabilities that make IP-enabled services seem "like" traditional telephony, and ignore other capabilities that are part and parcel of what providers offer and subscribers receive. Stated another way, these parties "ignore" or "brush aside" all attributes of IP voice applications that do not fit their desired classification.<sup>12</sup> This "analysis" is little different than concluding that a "car is the same as a tire" after considering only its tires, and ignoring its engine, transmission and body. It is moreover, plainly inconsistent with the Commission's decisions on the distinction between a telecommunications service and an information service, and its decisions applying the "functional equivalence" concept upon

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<sup>11</sup> See e.g., Qwest at 19 ("[a]ll IP-enabled services convert information from one form to another, process, retrieve, and store information, add protocol information, process protocols, and perform myriad other functions that constitute information services, including facilitating subscriber interaction with stored information"); SBC at 34 ("[u]se of an IP platform to provide a service that originates or terminates in IP, unlike use of PSTN ..., directly offers 'a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information'"); NCTA at 8 ("[a]ll IP-enabled services ... offer the capability for retrieving, using, storing and interacting with information via telecommunications"). The validity of this conclusion does not depend on whether the service is transmitted over the provider's own facilities, or those of a third party. See, e.g., AT&T at 18-19; Pulver at 24. It would make no sense to adopt different classifications depending on the owner of the underlying transmission facilities, in light of the fact that IP-enabled services and applications offered by Qwest and other providers may be used with broadband connections offered by third parties. Indeed, one of the attractive features of IP-enabled services and applications is that the subscriber may use them at any location worldwide at which a broadband connection is available.

<sup>12</sup> Powell Remarks, Jan. 14, 2004, at 7.

which the proponents of classifying VoIP as a telecommunications service rely, as explained *infra*.

Properly understood, VoIP "is simply an *application* that is provided over a broadband network."<sup>13</sup> These applications, which are continuously increasing in number and diversity, include e-mail, instant messaging, web surfing, streaming video, "gaming" and more. A user may thus simultaneously be speaking to a relative, composing an e-mail message to a business associate, playing chess with a distant opponent and downloading information from a web site. Such a user would be launching over the Internet commingled and indistinguishable packets carrying payloads for each such application. Nothing in the Act requires or permits the isolation for purposes of regulatory classification of one of many technologically indistinguishable applications provided over "a seamless communications infrastructure."<sup>14</sup> Indeed, doing so could have grave, albeit unintended consequences on other applications, and prevent IP networks from reaching their full potential.

Even if it were appropriate to consider them in isolation – which it is not -- the comments demonstrate that IP voice applications can do "so very much more" than "set up" and provide "pure transmission" for communications between two points.<sup>15</sup> True IP-

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<sup>13</sup> *VOIP: The Opportunity and Challenges Ahead*, remarks of FCC Commissioner Kathy Q. Abernathy, Michigan State University (Feb 19, 2004), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-244127A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-244127A1.pdf), at 2 (emphasis added); accord, Powell Remarks, Jan. 14, 2004, at 4; ME PUC at 4-5 ("voice is becoming merely one application of communications and information services technology").

<sup>14</sup> Powell Remarks, Mar. 10, 2004, at 2. *See also* SBC at 35 ("voice is just one of countless applications that will offered as part of IP-enabled services").

<sup>15</sup> Powell Remarks, Jan. 14, 2004, at 4; Final Decision, *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, Docket No. 20828, 77 FCC2d 384, ¶ 90 (1980) ("*Computer II Final Decision*"). *See also* Comcast at 12-13 (listing examples of VoIP's "features, functions and capabilities that go well beyond those available with traditional circuit-switched telephone services"); Cablevision at 2 ("VoIP services ... already combine voice and data in ways that go far beyond

enabled voice applications offer to subscribers an abundance of features and functions by virtue of their use of the IP format and data processing capabilities, as described in the comments of Qwest and other parties, and summarized above. As Verizon explains, for example, "in VoIP offerings, disparate capabilities such as voice mail, web collaboration, instant messaging, calendar conferencing, basic voice and custom calling features are all provided on an integrated basis via servers in an IP network."<sup>16</sup> Through the "fusing of computing power and communications," "internet voice" has become an "information and communication management tool" that includes an array of "information retrieval and processing capabilities" that qualifies it as an information service under the Act.<sup>17</sup>

The parties' urging the Commission to classify IP voice applications as telecommunications services simply "ignore" or brush aside" these facts as

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the functionality offered by traditional telephony services"); AT&T at 12 (listing "unique" features available through AT&T's new "CallAdvantage" service "not available with POTS" or the service that was the subject of the *AT&T Declaratory Ruling*); Qwest at 18-19 (same).

<sup>16</sup> Joint Declaration of Marilyn H. O'Connell, Eric J. Bruno, and Stuart D. Elby, attached as Exhibit A to Verizon, ¶ 29. See also Powell Remarks, Mar. 10, 2004, at 2 ("VoIP applications deliver voice mail as an MP3 File in your email box, on your palm pilot, and voice can be transcribed to text and vice versa"). These capabilities are not "adjunct to basic" services, as some commenters contend or imply. See, e.g., TW Telecom at 23-25. Adjunct to basic services involve the use of customer interaction with stored information for the purpose of "facilitating establishment of a transmission path over which a telephone call may be completed." See Order, *North American Telecommunications Association Petition for Declaratory Ruling Under Section 64.702 of the Commissions Rules Regarding Centrex, Enhanced Services, and Customer Premises Equipment*, FCC 85-28, 101 FCC.2d 349, ¶ 26 (May 29, 1985). "Call forwarding," for example, is an adjunct to basic service because allowing a customer to reroute calls to another number does not materially change the nature of a telephone call placed to that customer – she still "gets ordinary, basic telephone service." *Id.* ¶ 27. In contrast, voice mailbox capabilities are "enhanced," not "adjunct to basic," because they provide the customer with the use of a storage facility into which messages may be placed for later retrieval. *Id.* IP voice applications include not only storage of voice messages, but also an array of other capabilities that involve customer interaction with stored and other information.

<sup>17</sup> Powell Remarks, Jan. 14, 2004, at 4 ("internet voice can be readily integrated with other computing systems" to provide enhanced capabilities); SBC at 34 (IP voice applications "provide an information and communications management tool -- a means of fusing computing power and communications"); MCI at 22 ("IP based voice applications already include information retrieval and processing capabilities"), citing *Notice* ¶ 18; NCTA at 46 (providing examples of capabilities for "generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information" offered by VoIP).

"inconvenient" and thus "irrelevant" to their preferred outcome, and limit their analyses to real-time, two way voice capabilities.<sup>18</sup> The California, Iowa and other commissions appear to be arguing that if a universe could be created in which two-way real-time voice capabilities could be separated from all other capabilities offered by IP voice applications in particular and other IP applications in general, the voice capability would be just "like" traditional telephony that uses different technology. That postulate, however, does not exist in the real world. Neither the Act nor Commission precedent, moreover, supports their myopic analyses.

Unlike traditional telephony, the real-time, two-way voice capabilities included in IP-enabled services are inseparable from the communication management capabilities that distinguish VoIP from traditional telephony, and are an indispensable and inseparable part of IP services actually offered to and purchased by customers. Indeed, IP voice applications are marketed as an additional reason for customers to purchase, or enhance the value of, their broadband service, and not merely as a replacement for basic telephony.<sup>19</sup>

The Commission's precedents plainly foreclose analyses that consider only the characteristics that particular services or applications appear to have in common. Beginning with the Commission's *Computer Inquiry* proceeding and continuing through the release of the *AT&T Declaratory Ruling*, the Commission has consistently declined to classify offerings that included enhanced functionality based on some similarity between

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<sup>18</sup> Powell Remarks, Jan. 14, 2004, at 7.

<sup>19</sup> See generally *New Technologies*, Communications Daily, WL60706482, at 1 (June 30, 2004) (stating that most consumers who consider subscribing to VoIP are "technophiles"); Data Memo – PEW Internet Project and New Millennium Research Council, PEW Internet & American Life Project (June

the offerings and basic transmission services. In particular, the Commission acknowledged in its *Computer II Final Decision* that "some enhanced services may do some of the things that regulated communications services did in the past,"<sup>20</sup> and that "some enhanced services are not dramatically different from basic services or dramatically different from communications."<sup>21</sup> It nevertheless held that services offering capabilities through data processing would be classified as "enhanced" and not subjected to regulation under Title II of the Act, "no matter how extensive their communications components."<sup>22</sup>

In its 1998 Report to Congress, the Commission reiterated that if a user can receive enhanced functionality, the service is an information service,"<sup>23</sup> even if "an inseparable part of that service transmits information supplied or received by the user."<sup>24</sup> Stated another way, "[a]n offering that constitutes a single service from the end user's standpoint is not subject to common carrier regulation simply by virtue of the fact that it involves telecommunications components."<sup>25</sup>

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2004), available at [http://www.pewinternet.org/pdfs/PIP\\_VOIP\\_DataMemo.pdf](http://www.pewinternet.org/pdfs/PIP_VOIP_DataMemo.pdf), at 2 (reporting results of survey indicating that most consumers who have heard of VoIP are "long time Internet users").

<sup>20</sup> *Computer II Final Decision* ¶ 132.

<sup>21</sup> *Id.* ¶ 130.

<sup>22</sup> Report to Congress, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, 13 FCC Rcd 11501, ¶ 27 (April 10, 1998) ("*Stevens Report*"), citing *Computer II Final Order* ¶ 114.

<sup>23</sup> *Id.* ¶ 59

<sup>24</sup> *Id.* ¶ 56.

<sup>25</sup> *Id.* ¶ 58. The Commission holdings that the addition by carriers of enhanced services or features (e.g., voice mail) to their offerings of "traditional telephony" service does not warrant change to classification of the latter are readily distinguishable. Among other things, IP voice is not the underlying service to which enhanced capabilities have been added, but is an application that is added to other capabilities available with IP-enabled services. More specifically, end users purchase voice capability (and the ability to manage their communications) as one of many uses of their broadband connection, and the "market" comprises the full panoply of IP applications, including e-mail, instant messaging, electronic data

Similarly, the "functional equivalence" test, invoked by virtually all proponents of classifying IP voice applications as telecommunications services,<sup>26</sup> properly applied, refutes rather than supports their myopic analyses. Commission precedent establishes that the functional equivalence inquiry considers *all* aspects of the services being compared (other than price), not merely alleged similarities. As the Commission has explained in applying the functional equivalence test:

once all services are stripped to the core, and all options and features such as operator-assist features, unique address coding, geographic and number restrictions and the like are ignored, essentially all voice message services might appear to be like one another. *Differences between services with respect to features, operating characteristics and service options cannot be ignored.* Rather, they must be examined in light of their material relevance or practical significance to customers.<sup>27</sup>

When the "features, operating characteristics and service options" of IP-enabled services and IP voice applications are considered, as they must be, it is clear beyond peradventure that neither VoIP nor any other IP-enabled application is "functionally equivalent" to traditional telephony or any other telecommunications service.

Finally, true IP voice applications include a net protocol conversion allowing subscribers to interface with the PSTN, which has traditionally been a hallmark of information services under Commission precedent.<sup>28</sup> The arguments that net protocol

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transfer, data manipulating and processing, retrieving information from websites, etc. By contrast, in the cases cited by the opposing parties, the enhancements were simply added to pre-existing telephone service. Under the *Computer Inquiry* rules, which govern circuit telephony, the basic service remained basic and the enhancements were analyzed independently.

<sup>26</sup> See, e.g., Sprint at 14-15; CA PUC at 14; ACC at 3-9; UT DPU at 3; Rural Carriers at 4; CUB at 8; NASUCA at 2; NARUC at 4-7.

<sup>27</sup> *MCI v. AT&T*, FCC 92-201, 7 FCC Rcd 3047, ¶ 11 (May 15, 1992) (emphasis added), *vacated and remanded on other grounds by MCI v. FCC*, 10 F.3d 842 (D.C.Cir. 1993).

<sup>28</sup> SBC at 35 and n.77. See also Qwest at n.81 (explaining that through a net protocol conversion, Qwest's service allows communications with "disparate terminals"), citing *Computer II Final Decision*,

conversions" are irrelevant to the classification of IP voice applications mischaracterize the Act's definitions, the protocol conversions that IP communications undergo, and Commission precedent, as explained below.

First, there is no merit to the claim that Congress excluded consideration of protocol conversions through its definition of information service in the 1996 Act, as some parties assert.<sup>29</sup> To the contrary, because a net protocol conversion effects a "transformation" of information, the concept has been included expressly within the statutory definition.<sup>30</sup> Second, the Commission did not in the *AT&T Declaratory Ruling* deem net protocol conversions to be irrelevant to the classification of a service, as contended by other parties.<sup>31</sup> Rather, the Commission there limited its decision to communications that entered and exited the network in the same protocol, and thus underwent no "net" conversion, fitting precisely the long-standing definition of "basic" service established in the *Computer Inquiry* proceeding.<sup>32</sup> Third, and as a related matter, claims that the protocol conversions that occur with IP voice applications such as those

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77FCC2d 382, ¶ 99; AT&T at 19-20 (noting that Commission has repeatedly recognized that services that include a net protocol conversion are "information services").

<sup>29</sup> Sprint at 14, TW Telecom at 26.

<sup>30</sup> See 47 U.S.C. § 153(20) ("Information service means the offering of a capability for . . . transforming . . . information"); *Vonage Holdings Corp. v. MPUC*, 290 F.Supp.2d 993, 1000 (D. Minn. 2003) ("a net change in form and content occurs when Vonage's customers' originate communications to users connected to the PSTN, as 'the information transmitted over the Internet is converted from IP into a format compatible with the PSTN'").

<sup>31</sup> E.g., CA PUC at 26. Nor does the possibility that net protocol conversions may occur in connection with certain wireless calls mean that they cannot be relevant to the classification of a service, as suggested by TW Telecom at 25. Congress specifically declared that wireless service would be treated as a "common carrier" service, thus eliminating any need to consider the classification of the service. See 47 U.S.C. § 332(c)(1)(A). Congress chose a different scheme for wireline communications based on the Commission's classification of services as either telecommunications or information, defining the latter to include the capability of "transforming" information such as through a protocol conversion.

<sup>32</sup> *AT&T Declaratory Ruling* ¶ 4.



offered by Qwest are not "net" conversions are simply incorrect.<sup>33</sup> Subscribers to Qwest's offering send through their CPE information to the network in IP format, and Qwest performs only one conversion (IP to TDM), thereby allowing its subscribers to communicate with PSTN subscribers. To determine the existence of a "net" protocol conversion, the Commission looks at whether the "outputs of the network" differ from the inputs, which is the case with true VoIP applications.<sup>34</sup> That is, the parties to the voice communication are communicating with the network(s) in different protocols.

Finally, net protocol conversions that occur with IP voice applications are not the kind of "computer processing application" relating to "management" of a telecommunications system or service that the Commission and Congress have excluded from consideration in the classification inquiry. The conversions falling within the "telecommunications management" exception do no more than facilitate the provision of a basic service (*i.e.*, pure transmission).<sup>35</sup> IP-enabled services, including IP voice applications and the protocol conversions they involve, "do so very much more," as described above.<sup>36</sup>

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<sup>33</sup> *E.g.*, NY DPS at 4.

<sup>34</sup> Order, *Communications Protocols Under Section 64.072 of the Commissions Rules and Regulations*, Docket No. 83-510, 95 FCC2d 584, 590 (Nov. 21, 1983) ("*Communication Protocols*").

<sup>35</sup> See First Report and Order and Further Notice of Proposed Rulemaking, *Implementation of the Non-Accounting Safeguards of Sections of 271 and 272 of the Telecommunications Act of 1934, as Amended*, CC Docket No. 96-149, 11 FCC Rcd 21,905, ¶ 107 (Dec. 24, 1996) ("*Non-Accounting Safeguards Order*").

<sup>36</sup> See Powell Remarks, Jan. 14, 2004, at 4. None of the three categories of protocol processing discussed in the *Computer Inquiry* proceeding and then in the *Non-Accounting Safeguards Order* (¶ 106), and encompassed within the telecommunications management exception describe accurately the protocol conversions that IP voice communications undergo. The first category, "involving communications between an end user and the network itself," expressly excludes conversions, involving communications "between or among users" (*id.*), such as those that occur during a call between a VoIP subscriber and a PSTN subscriber. The second category, conversions required "to maintain compatibility between existing CPE" and "a new basic network technology" (*id.*), is inapplicable because (1) IP is not a "basic" network

There is likewise no merit to the claims of some parties that classifying IP voice applications as "information services" would disregard Congress' directive that a service offering only pure transmission capability be classified as a telecommunication service "regardless of the facilities used."<sup>37</sup> See 47 U.S.C. § 152(46). IP-enabled services and applications are correctly classified as information services because they offer the capabilities included in section 153(20). The purpose of the "regardless of the facilities used" language of 153(46) is to ensure that services that do not offer these capabilities, but are instead limited to "pure transmission," are classified as telecommunications services, regardless whether transmission is provided by telephone, cable or other networks. That is the most logical if not the only way to harmonize the definitions of "telecommunications service" and "information service."

In the end, therefore, parties urging the Commission to classify IP-enabled services and applications as telecommunications services fall back on two policy arguments. In particular, they contend that incorrectly classifying IP-enabled services and applications as telecommunications services is necessary to advance universal service and other important "social policy" objectives reflected in the Act,<sup>38</sup> and to ensure "regulatory parity" with traditional telephony.<sup>39</sup> These arguments are wrong or misplaced.

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technology, and (2) the VoIP subscriber's CPE is not "incompatible" with the network technology used by the VoIP provider. The third category, involving "conversions taking place solely within the carrier's network" (*id.*) are not "net" protocol conversions, as explained in the preceding paragraph.

<sup>37</sup> E.g., Sprint at 14-15; NASUCA at 10-14; MO PUC at 6-7.

<sup>38</sup> E.g., TW Telecom at 16-17, 28; CA PUC at 1; ACC at 19; NE PSC at 7-8.

<sup>39</sup> E.g., CA PUC at 29-30.

To the extent that market forces cannot achieve social policy objectives, the Commission may adopt appropriately tailored regulations pursuant to its ancillary jurisdiction under Title I, as explained in Qwest's opening comments. No commenting party that provides or is planning to provide IP-enabled services that include IP voice applications, and thus the parties that would be subject to regulation that the Commission might adopt under Title I, disputes the Commission's authority in this regard. Many of these parties expressly support the tentative conclusion in the *Notice* that the Commission could use its ancillary jurisdiction under Title I to apply regulations to IP voice applications if necessary to achieve social policy objectives.<sup>40</sup> Tellingly, the only parties to argue otherwise are telecommunications carriers seeking to intimidate the Commission into classifying IP-enabled services and applications so as to subject them to economic regulation. Their analysis, however, has been anticipated and thoroughly refuted by SBC.<sup>41</sup>

As for "regulatory parity," Qwest agrees that legacy regulation of traditional telephony is decreasingly justified as competition, including that offered by IP-enabled services, intensifies. However, regulatory parity neither requires nor warrants classifying true IP-enabled services, including voice applications, as "telecommunications services." Changes to legacy regulation historically fail to keep pace with market and technological developments. For that reason alone, it makes no sense to hamstring new and evolving

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<sup>40</sup> See e.g., Qwest at 36-40; SBC at 48-57; AT&T at 35-36; MCI at 34.

<sup>41</sup> SBC at 52-57. In addition to misreading judicial precedent regarding the scope of the Commission's ancillary jurisdiction, Sprint relies heavily (Sprint at 30-32) on the maxim "*expressio unius*" to argue that provisions in the Act that mention only "telecommunication service" necessarily prohibit the application of the same or similar requirements to information services. Sprint is wrong. The courts have held that the maxim "has little force in the administrative setting." See *Mobile Communications Corp. of America v. FCC*, 77 F.3d 1399, 1404-05 (D.C. Cir. 1996), citing *Texas Rural Legal Aid, Inc. v. Legal Services Corp.*, 940 F.2d 685, 694 (D.C. Cir. 1991), quoting *Chevron v. NRDC*, 467 U.S. 837, 842 (1984).

services and applications with outdated and irrational regulatory schemes. That is especially true with respect to IP-enabled services, including voice applications, which are so critical to both the nation's economy and consumers' quality of life.

Legitimate concerns about regulatory parity are best addressed by deregulating traditional telephony. Federal statutory tools exist for the FCC to do just that,<sup>42</sup> and states are always free to deregulate the intrastate components of traditional telephony. Any lingering doubt that traditional telephony is today subject to sufficient competition to warrant its deregulation should be foreclosed by the competitive forces that will continue to intensify if IP-enabled services are subject to a national, uniform and deregulatory approach. In all events, while deregulation of traditional telephony should be a priority, such deregulation cannot reasonably be achieved by applying to IP-enabled services the existing (and increasingly unjustified) regulations to which traditional telephony is subject.

## **II. THE COMMENTS UNDERSCORE THE NEED FOR A PROMPT RULING BY THE COMMISSION THAT ALL STATE REGULATION OF IP-ENABLED SERVICES AND APPLICATIONS IS PREEMPTED, EXCEPT FOR LAWS AND REGULATIONS APPLICABLE TO BUSINESSES GENERALLY.**

### **A. Substantial Harm Would be Inflicted Upon the Economy and Consumers by State Regulation of IP-Enabled Services and Applications, With No Offsetting Benefits.**

Virtually all providers and equipment manufacturers agree that a national and uniform approach to regulation is critical to the expansion of broadband deployment and the further development of IP-enabled services and applications.<sup>43</sup> The consensus of

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<sup>42</sup> 47 U.S.C. § 160 (1996).

<sup>43</sup> See, e.g., *Qwest* at 5, 28-36; *SBC* at 5, 43-47; *Verizon* at 31-42; *BellSouth* at 32-36; *CompTel* at 3-5, 19; *Vonage* at 14; *PointOne* at 7, 11-12; *Motorola* at 4-7; *Nortel* at 13-14.

## CERTIFICATE OF SERVICE

I, Richard Grozier, do hereby certify that I have caused the foregoing **REPLY COMMENTS OF QWEST COMMUNICATIONS INTERNATIONAL INC.** to be 1) filed with the FCC via its Electronic Comment Filing System in WC Docket No. 04-36, 2) a copy of the **REPLY COMMENTS** to be served via e-mail on Ms. Janice M. Myles, Competition Policy Division, Wireline Competition Bureau, Federal Communications Commission, via [janice.myles@fcc.gov](mailto:janice.myles@fcc.gov), 3) a copy of the **REPLY COMMENTS** to be served via e-mail on the FCC's duplicating contractor Qualex International, Inc., via ([qualexint@aol.com](mailto:qualexint@aol.com)), and 4) a copy of the **REPLY COMMENTS** to be served, via First Class United States mail, postage prepaid, on the parties listed on the attached service list.

Richard Grozier  
Richard Grozier

July 14, 2004